

**Tibetan Development Assistance Trust Sponsored**

**Irrigation Improvement Project**

# **Final Report**

to

**The Tibetan Development Assistance Trust**

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*From*

Shar Dzong Development Group

September 7, 2009

# **Jianke Tibetan Village Irrigation Improvement Project**

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## **Summary**

### **What?**

Irrigation System Improvement Project

### **Where?**

Jianke Village, Jinyuan Township, Hualong Hui Autonomous County, Qinghai Province, China

### **Cost?**

183,668.8RMB

### **Beneficiaries?**

49 households in Jianke Village (400 Tibetans)

### **Duration?**

June 5, 2009—September 15, 2008

# Photographs

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New concrete-ditch from water source to the fields.



New concrete-ditch bringing water to fields.



The villagers fill bags with sand, which was then transported by donkeys and mules to build the concrete ditches.



Constructing the irrigation ditch.



Villagers digging the ditch.



A portion of the land that was irrigated after construction of the irrigation system.



Pipes at a welding shop in Jinyuan Township Town.



Pipe connectors.



Lerjiater visited and evaluated the project.



Pipes at the project site.



Pipe supporting poles at project site.



Lerjiater monitors quality of supporting poles and pipes.



Lerjiater talks to the project committee members to learn how they place the metal pipes.



Part of the land that will be irrigated.



Women were a major part of the project labour force.



Villagers place the pipes.



**New irrigation pipe bringing water over a ravine.**



New irrigation pipe bringing water over a ravine.



New irrigation pipe bringing water over a ravine.



New irrigation pipe.



New concrete-stone ditch running along a hillside. Before, water broke through the walls of the earthen ditch and damaged the road below.



New irrigation pipe running along a hillside. Erosion was caused by the old earthen ditch.



New irrigation pipe bringing water over a valley.



Pipe connector.



villagers have lunch.

## Part I: Project Report

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1. **Project Name:** Jianke Village Irrigation Improvement Project
2. **Project Location:** Jianke Village, Jinyuan Township, Hualong County, Qinghai
3. **Implementing Organization:** Shar Dzong Development Group
4. **Project Donor:** The Tibetan Development Assistance Trust
5. **The Tibetan Development Assistance Trust's Donation:** 86,468.8 RMB
6. **Local contribution:** 97,200 RMB
7. **Project Beneficiaries:** 49 households (400 Tibetans)
8. **Start date:** June 5, 2009
9. **End date:** September 15, 2009
10. **Contact Persons:** Lerjiater & Hangdan

### Project Management Committee

Name	Occupation	Responsibility
Hangdan	Village Party Secretary	Village labour organizer; project local fund and construction materials manager
Dajie	Villager	Main local project manager
Huaju	Villager	Labour manager
Pucu	Villager	Materials manager
Lamo Zhuma	Villager	Female member, project committee
Rechen	Villager	Project coordinator
Dorjie	Supervising Sector	Technical supervision and evaluation
Lerjiater	Director	Project quality supervision
Zhaxi	Director	Local supervisor
Chris Cherry	Editor	Project report
Lerjiater	Director	Project report

Dear Anneli,

We are pleased to report on the satisfactory completion of this irrigation improvement project for an impoverished Tibetan village in Jinyuan Tibetan Autonomous Township, Hualong Hui Autonomous County, Haidong Region, Qinghai Province. This project greatly benefited 49 Tibetan households (400 people).

Before this project was implemented, the village irrigation system was very poor--a system of earthen ditches. Water sank into the earth in the channel and ditch sections regularly collapsed. The irrigation system was only useable for a limited time in summer. The original irrigation system required extensive repairs each year before villagers could irrigate land. This was an onerous task for the villagers and limited the time villagers could spend collecting caterpillar fungus, which is the main income source for local residents. Repairing the channels thus negatively affected the cash income of the villagers, who also spent a relatively large amount of money to buy cement for repairing ditches with rocks and cement. Sometimes they also used plastic bags containing sand to repair the ditch, but this was only a temporary measure.

Because of ground absorption of irrigation water, the amount of water that actually reached the fields was insufficient. One outcome was yields that were inadequate to meet villagers' basic need for food.

Support from the Tibetan Development Assistance Trust allowed villagers to redesign and relocate the system, which now consists of concrete-rock channels and metal pipes across ravines. The villagers can obtain more water for their fields and can irrigate their land whenever they want. The water is of such quantity that they can irrigate additional land. Previously, the villagers spent over a month irrigating all of the land and sometimes more during dry seasons. Now, they can finish this task in 10 to 15 days. This saves much time and they have used this time on other activities to improve their living conditions. The new irrigation system has created a sufficient, reliable and safe irrigation system for this Tibetan village.

We, the Project Committee), express our sincere gratitude for your help and kindness on behalf of the Tibetan families who have benefited from this project.

Sincerely yours,

Project Committee

# Project Description

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Jianke Irrigation System Improvement Project began on June 5, 2009 and was completed on September 15, 2009. The Tibetan Development Assistance Trust contributed 86,468.8 RMB for this project. The local villagers contributed 96,077.40 RMB. The villagers provided all of the unskilled labour--45 villagers worked on the project for approximately 100 days. This is valued at about 90,000 RMB (45 people X 100 days X 20 RMB/ person/ day). The villagers also provided all of the local materials (stone and sand). Lerjiater contributed 200 RMB for transportation and telephone calls. The total value of this project is 182,746.20 RMB.

The Tibetan Development Assistance Trust's Irrigation Project in Jianke Tibetan Village benefited 49 families (400 people). The original channels ran through eroding, sandy soil. Water was lost through parts of the earthen ditch that leaked through the ditch and into the earth.

The new system consisting of a concrete irrigation ditch and metal pipes brings water to approximately 10 hectares/ 300 *mu*. This improves food security for the whole village and will save villagers money which they previously spent on wheat flour to supplement their low crop yields. It is expected that the villagers will now have enough in the way of crops that they will be able to sell grain to earn extra chaise. Furthermore, the project will end conflict between villagers over water; such conflict was common with the old irrigation system that meant there was never enough irrigation water. Furthermore, villagers will no longer need to spend time repairing an unreliable irrigation system that frequently had breaks in the dirt irrigation ditch with damage to the road to and from the township town.

Project benefits include:

- Adequate food supply for villagers through increased crop yields
- More cash because less money will be spent on food
- No conflict between community members over water
- More cash income through villagers having more time to spend on such other income-generating activities as collecting caterpillar fungus
- End erosion from the old earthen, irrigation channel and damage to the local road

### Project Implementation Record

Participants	Accomplishment	2009
Aaron	Met with the villagers to discuss the project. Villagers voted for five project committee members including one female member.	June 4
Aaron	Met with the project committee. Discussed labour management and system design.	June 5
Aaron & project committee	Project Committee and Aaron visited project location to design and plan system.	June 6
Villagers	Villagers dug the channels from the water source to the fields	June 5 – 25
Villagers	Villagers make a path passable for animals to carry stone and sand to the channels.	June 26 – July 1
Villagers	Villagers collected stones and sand.	July 1-5
Villagers	Villagers carry stones and sands to the channels.	July 6-10
Aaron	Monitored the project	July 7-8
Project committee & Pencuo	Transported cement to project site.	July 9
Villagers & Pucuo	Built concrete channels.	July 10– August 25
Aaron & project committee	Committee members and Aaron purchased metal pipes, contactors, screws, pad, metal support poles for pipes, and metal wires in Xining and transported them to Jinyuan Welding Shop.	July 14 – 16
Pencuo & Dorji	Welding.	July 18 - Sep 2
Aaron	Monitored the project and check the quality of the system	August 23-25
Villagers, Dorji & Pencuo	Built the concrete support poles.	August 26-29
Villagers, Dorji & Pencuo	Installed pipes in the ravines.	August 30 - September 2
Villagers	Removed earth from the concrete-rock channels.	September 5
Aaron	Visited the project and took photos	September 6
Aaron	Wrote final report.	September 2 -15

## Part II: Project Financial Report

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1. **Project Name:** Jianke Village Irrigation Improvement Project
2. **Project Implementing Organization:** Shar Dzong Development Group
3. **Project Implementation Period:** June 5, 200— September 15, 2008
4. **The Tibetan Development Assistance Trust's Donation:** 86,468.8RMB
5. **Local contribution:** 96, 077.40RMB
6. **Project Cost:** 182,746.20RMB

### Summary

Donor	Amount RMB
Tibetan Development Assistance Trust	86,468.80
Jianke Villagers	96,077.40
Lerjiater (Aaron)	200.00
Total Project	<b>182,746.20</b>

### Detailed financial summary

Jianke Villagers = 96,077.4RMB	
Contribution	Explanation
90,000	Provided unskilled labour works to the project.
5,000	Values of local materials; sand and stones.
862.4	Pay the part of welding costs.
215	Fee to transport the pipes and poles from the welding shop to the project site.
Lerjiater = 200 RMB	
200	Monitoring visits to the project site + miscellaneous expenses

### Project Original Budget

<i>Item/Type of Activity</i>	<i>Details</i>	<i>Requested Contribution from donor RMB</i>
Cement	70 Ton X 330.00 RMB/Ton	33,000.00
Metal Pipes	60 pieces X 850.00 RMB/piece	42,500.00
Supporting frames	40 pieces X 50.00 RMB/piece	2,000.00
Pipe connectors	120 pieces X 18.50 RMB/piece	2,220.00
Screws	960 pieces X 1.28 RMB/piece	1,228.80
Plastic pads	120 pieces X 0.70 RMB/pad	84.00
Soldering fees for pipes	60 pieces X 30.00 RMB/pipe	1,800.00
Soldering fees for frames	8 X 85.00 RMB/frame	680.00
Salary for skilled pipe worker	10 days X 50.00 RMB/day	500.00
Transportation fee for pipes & frames	1 lorry trip X 1400.00 RMB/trip	1,400.00
Transportation fee for cement	70 Tons X 80.00 RMB/ton	56,00.00
Administrative fee		1,000.00
Unskilled labour	50 people X 70 days X 20 RMB/day	0.00
Sand	80 tractors X 60 RMB/trip	0.00
Stone	45 tractors X 60 RMB/trip	0.00
<b>TOTAL</b>		86,468.8

### Project Actual Expenditure of donor's fund

Item	Quantity	Unit Price	Total Price	Receipts #
Cement	50 Ton	420 RMB/ton	21,000.00	1
Metal Pipes	80 pieces	500 RMB/piece	40,000.00	2
Supporting frames (4X4)	70 pieces	45 RMB/piece	3,150.00	2
Supporting frames (5X5)	52 pieces	60 RMB/piece	3,120.00	2
Supporting frames (6X6)	40 Pieces	120 RMB/piece	4,800.00	2
Pipe connectors	144 pieces	20 RMB/piece	2,880.00	3
Screws	576 pieces	1.4 RMB/piece	806.40	3
Plastic pads	80 pieces	1.5 RMB/piece	120.00	3
Paints & brushes	5 buckets	77 RMB/per	385.00	4
Soldering fees for pipes	80 pieces	20 RMB/piece	1,600.00	5
Painting fees for pipes	80 pieces	10 RMB/piece	800.00	5
Soldering fees for frames	15	100 RMB/piece	1,500.00	5
Transportation fee for pipes & frames	2 lorry trip	1,200 RMB/1time/lorry	2,400.00	6
Transportation fee for the cement	50 Ton	100 RMB/ton	5,000.00	7
Total			87,561.40	

# Receipts for Donor Funds

地方国营化隆县水泥厂

## 收款(貨)收据

1

 号

2009 年 7 月 9 日

今收到 金源新材料 来 水泥款 50T×420

计 21000

人民币(大写) 贰万壹仟元

¥ 21000

收款单位 公章 收款人 子 交款人 刚

第三联 交款人收执

## 收款收据

2

 903

客户名称: 金源新材料 日

项 目	单 位	数 量	单 价	金 额					备 注		
				百	十	千	百	十		元	角
管子	支	80	4000			4	0	0	0		
角钢 4x4	支	20	1400			3	1	5	0		
角钢 5x5	支	52	600			3	1	2	0		
角钢 6x6	支	40	1200			4	8	0	0		
合 计 (大写)				佰	拾	万	仟	佰	拾	元	角
人民币				¥: 51270.5							

主管: 会计: 收款人:

第二联 客 户

## 销 货 单

购货单位: 2009 年 8

3

品 名	规 格	单 位	数 量	单 价	金 额
镀锌	420	片	144	20	2880
镀锌	418	=	576	14	8064
镀锌	6200	=	80	15	120
				合 计	3806.40

**MAJS** 涂料

苏州立邦雅士利涂料有限公司  
产品质量信誉保证单

感谢您使用本公司产品!本公司产品给予您质量、信誉的保证。——生无忧。  
欢迎拨打苏州立邦咨询热线:8008282146。

购漆品种	包装	数量	单价	小计	备注
PE漆		5	75	375	
腻子		5	2	10	
				385	

顾客姓名:  
联系地址:  
联系电话:

经销店盖章:

2009年8月4日

第一联:公司存根联

收条

5

今收到尖利村灌溉项目钢管扣2费叁仟玖佰元(3900元)

附:钢管扣2费:80支×20元=1600元

钢管漆费:80支×10元=800元

支撑架扣2费:15支×100元=1500元

多杰 7/8

收条

6

今收到尖利村拉管子运费贰仟肆佰元(2400元) 西宁一化隆(2趟)

收款人:马可夫

09.7.18

收条

7

今收到尖料村水泥运费

伍仟元正 (5000元)  $50\text{吨} \times 100\text{元/吨} =$

5000元正 (依隆一金源尖料)

收款人: 龙国

09.7.9

## **Appendix 1: Original Project Proposal**

### **Jianke Tibetan Village Irrigation Improvement Project**

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A portion of Jianke Village's irrigated land.



The current ditch is in a constant state of disrepair.



Damage to the road to Jianke Village caused by the earthen irrigation ditch.



Water breaks through the current earthen ditch, causing erosion, the hillside collapses, and there is damage to the fields. This is just one of many hillside sections affected.

**1. Project Title:** Irrigation System Improvement Project

**2. Location of Proposed Project:**

Jianke Village, Jinyuan Township, Hualong County, Haidong Region, Qinghai Province, PR China

**3. Project Budget:**

- a) Total Budget for the Project: 163,968.8 RMB
- b) Amount requested from the donor: 86,468.8RMB
- c) Amount to be provided locally: 77,500.00 RMB

**A. PROJECT DESCRIPTION**

**1. PROJECT OBJECTIVES & EXPECTED RESULTS**

*Explain the objectives of this project and what results and impact you hope to achieve.*

The objective of this project is to drastically improve Jianke Village's irrigation system. The current system is mostly earthen ditches that results in poor crop yields, damages the local road, and causes erosion. A new irrigation system constructed with concrete and pipes will have the following positive impacts:

- Increase crop yields, thus reducing the amount of wheat each household must purchase each year, which will reduce debts
- Eliminate road damage caused by the current earthen ditch irrigation system
- Significantly reduce erosion caused by the current irrigation system

These project objectives and impacts are detailed in full below in the "Project Justification" section.

**2. BENEFICIARIES** *(Identify the direct and indirect beneficiaries of this project.)*

The direct beneficiaries are the 330 Tibetans in the 45 households that comprise Jianke Village. This village is widely believed to be the poorest village in Jinyuan Township. There is a local joke that Jianke Village residents cannot calculate their electricity bills, which implies underlying reasons for their impoverishment.

The village leader estimates that village cash income is 200 to 300RMB per person per year. This is earned mostly through digging for caterpillar fungus during the spring and summer and selling it to local traders. The village has 258 *mu* of irrigated land and 300 *mu* of non-irrigated land. The irrigated land is used mostly for wheat, the staple crop, which is then used to make bread and noodles. Villagers grow potatoes, rapeseed, beans, and barley on the non-irrigated land. Barley is mostly used to feed livestock. The village has approximately 200 yaks and 1,000 sheep.

**3. IMPLICATIONS FOR WOMEN** *(Describe the potential impact of this project on women's status. Identify measures that will be taken to ensure female beneficiaries' active involvement in all aspects of the project.)*

Since women are mainly responsible for agriculture in Jianke Village, this project will reduce the gruelling labour necessary for maintaining the current system. There are constant breaches of the ditch, especially during the rainy season, that women must repair. A concrete and pipe system will

eliminate this problem. This may not directly impact women's status, but it is hoped that the reduced physical burden on women will improve their health and lead to an increased quality of life.

Women will contribute to all aspects of the project, including design, management, and unskilled labour.

#### **4. IMPLICATIONS FOR ENVIRONMENT**

*Describe potential environmental effects, both positive and negative.*

This irrigation project will directly impact the local environment in a positive way. The current irrigation system results in a high level of erosion. A new concrete and pipe system will drastically reduce the amount of water lost through breaches in the irrigation system, thus protecting the hillsides and fields from water-caused erosion.

#### **5. IMPLEMENTATION PLAN**

*Describe the proposed project activities and how they will be implemented. Identify any risks and potential challenges.*

- June 15, 07: Receive funds.
- June 20, 07: Villagers met to select the local project committee and organize the villagers' contribution to labour and plan the project.
- June 20 - 30, 07: Prepare local materials such as sand and stone.
- July 2 - 15, 07: Purchase materials and transport them to the project site.
- July 1 - Sep 15, 07: Construct the irrigation system.
- September 20, 07: Final celebration.
- Sep 20 - October 15, 07 Write and send the final report.

This project is subject to the following risks: delay in the transfer of the funds and inclement weather (because of the poor road condition) may cause a delay in project implementation. Also, the prices of materials may change.

Should the project be funded but the funds cannot be transferred according to the timetable, the villagers can still prepare the roads and deliver the sand and stone, ensuring all preparatory work will be completed and the project can start as soon as funds are available. The weather, though an inconvenience, should only delay the project and not affect its ultimate completion. Lastly, we can manage the risks of a change in price by shopping among potential supplier and comparing prices.

**6. MONITORING & EVALUATION** ( Describe the mechanisms that will be used (e.g. indicators, methods, approaches, etc.) to monitor and evaluate the project's activities and results.)

Lerjiater will monitor the project through periodic trips to the project site. Also, Lerjiater will be in regular phone contact with SDDG. Lerjiater, in cooperation with SDDG and Jianke Village Project Committee, will make the goals and expectations of the project clear to villagers. Lerjiater will be responsible for writing the final report.

This project will be evaluated by observing changes in crop yields. Additionally, the amount of time saved by the villagers in not having to repair the ditch each year and the time spent irrigating their land will be evaluated through interviews. These benefits will mostly be realized by women. After

project completion, the villagers will be interviewed about these questions and the information will be included in the Project Final Report.

**7. PROJECT SUSTAINABILITY** (*Describe what measures will be taken to sustain the project's results in the future.*)

Villagers will choose five capable people to take responsibility for the long-term maintenance of this project. Each year the committee will organize the villagers to remove the earth and sand in the ditch before they irrigate. They will also manage the villagers to repair the system if it becomes necessary.

**8. COMMUNICATIONS STRATEGY** (*Describe how “lessons learned” and project results will be shared.*)

Project results will be shared throughout the community because all villagers will use the new irrigation system.

## **B. PROJECT BACKGROUND**

**1. PROPOSAL PROCESS**

*Describe how and when this proposal was developed, including what kinds of consultations or needs assessments were conducted and who was involved with submitting this proposal.*

Several Jianke villagers and the Jianke Village leader, named Gene, approached Lerjiater with their desire for a new irrigation system after learning of Lerjiater's reputation for proposing and managing local development projects. On May 2, 2006, Lerjiater and Steve Frediani, a teacher in ETP program at Qinghai Normal University, visited Jianke Village to perform a needs assessment.

**2. PROJECT JUSTIFICATION** (*Describe the background of this project (e.g. from natural, economic, and social perspectives) and why financial assistance is requested.*)

Local villagers themselves believe this to be an important project mostly for economic reasons. Local villagers also acknowledge natural benefits from this project, such as reduction of erosion and road damage caused by the current irrigation system.

According to Gene, the village leader, current wheat yields average 150 kg per *mu* of land. This is not enough for an average household's yearly needs. Therefore, the average household purchases about 1,000 kg of wheat each year. Local wheat sellers and wealthier families have been willing to loan wheat on interest. A 50 kg sack of wheat costs 113 RMB at current prices. This represents an average household expenditure for wheat of about 2,200 RMB per year. With average income between 200 and 300 RMB per year, the households accumulate large debts; average household outstanding debts are between 5,000 and 6,000 RMB. Several households have outstanding debts of about 20,000 RMB.

Most income comes from digging and selling caterpillar fungus. Once every five years or so, there is caterpillar fungus in quantity so that households earn much more than usual, perhaps more than 5,000RMB. At this time, households pay off as much of their debt as they can.

This is not a sustainable system. With anecdotal evidence of poor caterpillar fungus yields raising local fears about the deterioration of caterpillar fungus as a stable income-generating endeavour, it

seems that something about the local economy must change. A positive step is to increase wheat yields. The village leader approximates that a much more efficient and dependable irrigation system could increase wheat yields from the current level of 150 kg per *mu* to 250 kg per mu. If these gains are realized, average household expenditure for wheat to meet yearly needs will be cut by more than half--from about 2,200 RMB to 800 RMB. In the short-term, if average household income stays at current levels, the average household will break even or come close to breaking even each year.

The village petitioned the local government twice in the past for this project but was ignored both times.

In addition to the major economic benefits, a new irrigation system will reduce erosion and road damage.

## C. PROJECT BUDGET

### Jianke Village Irrigation System Project Budget

<i>Item</i>	<i>Details</i>	<i>Donor Contribution RMB</i>	<i>Local Contribution RMB</i>	<i>RMB</i>
Cement	70 Ton X 330 RMB/Ton	33,000.00	0.00	33,000.00
Metal pipes	60 pieces X 850 RMB/piece	42,500.00	0.00	42,500.00
Supporting frames	40 pieces X 50 RMB/piece	2,000.00	0.00	2,000.00
Pipe connectors	120 pieces X 18.50 RMB/piece	2,220.00	0.00	2,220.00
Screws	960 pieces X 1.28 RMB/piece	1,228.80	0.00	1,228.80
Plastic pads	120 pieces X 0.70 RMB/pad	84.00	0.00	84.00
Soldering fees for pipes	60 pieces X 30 RMB/pipe	1,800.00	0.00	1,800.00
Soldering fees for frames	8 X 85 RMB/frame	680.00	0.00	680.00
Salary for skilled pipe worker	10 days X 50 RMB/day	500.00	0.00	500.00
Transportation: pipes & frames	1 lorry trip X 1,400 RMB/trip	1,400.00	0.00	1,400.00
Transportation: cement	70 tons X 80 RMB/ton	56,00.00	0.00	56,00.00
Administrative fee		1,000.00	0.00	1,000.00
Unskilled labour	50 people X 70 days X 20 RMB/day	0.00	70,000.00	70,000.00
Sand	80 tractors X 60 RMB/trip	0.00	4,800.00	4,800.00
Stone	45 tractors X 60 RMB/trip	0.00	2,700.00	2,700.00
<b>TOTAL</b>		86,468.80	77,500.00	163,968.80